# Hinkson Creek (1008) Use Attainability Analysis



Boone County Regional Sewer District 1314 North 7<sup>th</sup> Street Columbia, MO 65201-3902

Prepared by
Barr Engineering Company
July 2005

# Hinkson Creek (1008)

Use Attainability Analysis

Boone County Regional Sewer District 1314 North 7<sup>th</sup> Street Columbia, MO 65201-3902

July 2005



Barr Engineering Company 3236 Emerald Lane Jefferson City, MO 65109 Phone: (573) 636-5331 Fax: (573) 636-5323

JUL 1 3 2005

Data Sheet A - Water Body Identification

WATER PROTECTION PACSRAM

Water Body Name (from USGS 7.5' quad): Hinkson Creek
8-digit HUC: 10300102
Missouri WBID #: 1008
County: Boone
Upstream Legal Description: Hinkson Creek at North line Section 36, T50N, R12W
Downstream Legal Description: Highway 163 crossing (in West 1/2 Section 24, T48N, R13W)
Upstream Coordinates: UTM (Z15N) 567656E; 4325844N
Downstream Coordinates: UTM (Z15N) 557330E; 4308971N
Discharger Facility Name(s): BCSD, Sun Valley Estates, Permit # MO0049913 BCSD, Leisure Hills, Permit # MO0084832 BCSD, Sharidan Hills, Permit # MO0085952 BCSD, Hillview Acres Subdivision, Permit # MO0088668 BCSD, El Rey Heights, Permit # MO0091766 Columbia Foods Company, Permit # MO0104337 BCSD, Lake Capri Subdivision, Permit # MO0114782 BCSD, Fall Cr Division, Permit # MO0123072 Manchester Heights Subdivision # MO0081922 Elray MHP # MO0105520 Lake of the Woods MHP # MO0109631 Boone County Regional Sewer District-Lake of the Woods # MO0034444
Discharger Permit Number(s): See Above.
Number of Sites Evaluated: 17
Name of Surveyor and Telephone Number: Alan Fandrey (573-638-5013)
Organization: Barr Engineering Company
Position: Civil Engineer

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: Olan Karuly	Date: 7-1-2005
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## **Data Sheet B - Site Characterization**

(A separate data sheet must be completed for each site)

	Missouri WBID #: 1008-	001			Site Location Description: Hinkson Creek at road crossing in West 1/2 Section 36, T50N, R12W; BID 20 - Boone County			
	Site GPS Coordinates: 5	67709E; 43252211	N	1/2 Sectio	n 36, 1	50N, R12W; BID 20 - B00	ne County	
	Date & Time: 5/26/05 - 2	:20 p.m.		Facility N	Facility Name: See Table 2			
	Personnel: Tim J. Fandre	у		Permit Nu	Permit Number: See Table 2			
	Current Weather Condition	ons: Clear - 70s		Weather (	Conditio	ons for Past 7 days: Last ra	in on May 22	
	Photo Ids: Upstream: 10	08-001US Dov	vnstrear	n: 1008-001DS	Other:	1008-001O		
ļ								
Us	es Observed*:					T		
	☐ Swimming	☐ Skin diving		☐ SCUBA diving		☐ Tubing	☐ Water skiing	
	☐ Wind surfing	☐ Kayaking		☐ Boating		□ Wading	Rafting	
	Hunting	☐ Trapping		☐ Fishing		None of the above	Other:	
	rrounding Condition	<b>S*:</b> (Mark all that	promote	e or impede recreat	ional us	ses. Attach photos of evider	nce or unusual	
ici.	City/county parks	☐ Playgrounds	Пм	DC conservation la	nds	☐ Urban areas	☐ Campgrounds	
	☐ Boating accesses	☐ State parks		ational forests		☐ Nature trails	☐ Stairs/walkway	
	No trespass sign	☐ State parks ☐ Fence		eep slopes		Other:	Stans, warkway	
Εv	idence of Human Use			eep stopes		_ Concr.		
	⊠ Roads	☐ Foot paths/pri	nts	☐ Dock/platform	n	☐ Livestock Watering	RV / ATV Tracks	
	☐ Rope swings	☐ Camping Sites	S	☐ Fire pit/ring		☐ NPDES Discharge	☐ Fishing Tackle	
	Other: Fishing bobber	r in tree						

<sup>\*</sup>Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

# Data Sheet B - Site Characterization

## Page Two - WBID #1008-001:

Riffle	View Physical I Width (ft):	Length (ft):	Avg. Dep			<del></del>
Run	Width (ft):	Length (ft):			Max. Depth (ft):	
☑ Pool	Width (ft): 15		Avg. Dept		Max. Depth (ft):	
<del>-</del>		Length (ft): 20		th (ft): 0.3	Max. Depth (ft):	0.5
Flow	Present? Yes	⊠ No	Estimated	(ft <sup>3</sup> /sec): see be	elow	
Downstre	am View Physica	d Dimensions:				
Riffle	Width (ft):	Length (ft):	Avg. Dept	h (ft):	Max. Depth (ft):	<del></del>
Run	Width (ft):	Length (ft):	Avg. Dept		Max. Depth (ft):	<del>-</del>
⊠ Pool	Width (ft): 5.0	Length (ft): 12		h (ft): 0.3	Max. Depth (ft):	
⊠ Flow	Present? X Yes	□No		$\frac{\text{(ft)}^3/\text{sec)}}{\text{(ft)}^3/\text{sec)}} < 1$	wax. Depui (it):	<del></del>
<u></u>				(167300). < 1		<del></del>
ıbstrate*:	(These values should					
⊥ ԶՈ%	Cobble 10	% Gravel	% Sand	% Silt	10% Mud/Clay	% Bedrock
quatic Veg Some algae	on rocks,	ount of vegetation or al	lgal growth at the as	sessment site)		
quatic Veg Some algae ater Chara	on rocks.  acteristics*: (Mark	call that apply.)		sessment site)		
Some algae ater Chara	on rocks.  acteristics*: (Mark	all that apply.)	☐ Chemical	⊠ None	☐ Other:	
ater Chara Odor: Color:	on rocks.  acteristics*: (Mark	all that apply.)  Musky Green	Chemical Gray	⊠ None	Other: brown	
ater Chara Odor: Color: Bottom Dep	acteristics*: (Mark	all that apply.)  Musky Green Solids	Chemical Gray Fine sediments	None     Milky     None	Other: brown	
ater Chara Odor: Color:	acteristics*: (Mark	all that apply.)  Musky Green	Chemical Gray	⊠ None	Other: brown	
ater Chara Odor: Color: Bottom Dep Surface Dep	on rocks.    Clear   Clear     Oil     Oil     Olease attach addition     On rocks.     Oil     Oil	all that apply.)  Musky Green Solids Scum	Chemical Gray Fine sediments Foam	None Milky None None	Other: brown Other: Other:	
ater Chara Odor: Color: Bottom Dep Surface Dep	on rocks.    Clear   Clear     Oil     Oil     Olease attach addition     On rocks.     Oil     Oil	all that apply.)  Musky Green Solids Scum	Chemical Gray Fine sediments Foam	None Milky None None	Other: brown	
ater Chara Odor: Color: Bottom Dep Surface Dep	on rocks.    Clear   Clear     Osit:   Sludge     Oil     Please attach addited	all that apply.)  Musky Green Solids Scum  ional comments (ind to stabilize bank	Chemical Gray Fine sediments Foam ncluding informa	None  Milky  None  None  None  ition from intectric fence.	Other: brown Other: Other: erviews) to this form.	
ater Chara Odor: Color: Bottom Dep Surface Dep ments: Fagnant upsto	cteristics*: (Mark Sewage Clear Sosit: Sludge Sosit: Oil Please attach additeream, fencing used in its not to be used so	all that apply.)  ☐ Musky ☐ Green ☐ Solids ☐ Scum  Conal comments (ind to stabilize bank)  lely for removal of a rest conditions. Consequents	Chemical Gray Fine sediments Foam  ncluding informatedownstream. Electronal use designed to the information of the information	None Milky None None tion from intectric fence.	Other: brown Other: Other: erviews) to this form.	
ater Chara Odor: Color: Bottom Dep Surface Dep ments: Fagnant upsto	cteristics*: (Mark Sewage Clear Sosit: Sludge Sosit: Oil Please attach additeream, fencing used in its not to be used so	all that apply.)  ☐ Musky ☐ Green ☐ Solids ☐ Scum  Conal comments (ind to stabilize bank)  lely for removal of a rest conditions. Consequents	Chemical Gray Fine sediments Foam  ncluding informatedownstream. Electronal use designed to the information of the information	None Milky None None tion from intectric fence.	Other: brown Other: Other: erviews) to this form.	
ater Chara Odor: Color: Bottom Der Surface Der Dissinformation prehensive unision on the re-	acteristics*: (Mark Sewage Clear Sosit: Sludge Sosit: Oil Please attach addite ream, fencing used an is not to be used so understanding of water ecreation use analysis	mall that apply.)    Musky   Green   Solids   Scum    Scum    Scum    Musky   Green   Solids   Scum    Scum	Chemical Gray Fine sediments Foam  ncluding informatedownstream. Electronal use designently, this informated dittions that need furnished.	None Milky None None None tion from intectric fence. gnation but rather on is not intend ther analysis or	Other: brown Other: Other: erviews) to this form.  or is to provide a more ed to directly influence a that effect another use.	
ater Chara Odor: Color: Bottom Der Surface Der Der Surface Der	cteristics*: (Mark Sewage Clear Oosit: Sludge Oosit: Oil Please attach addite ream, fencing use on is not to be used so understanding of wate ecreation use analysis gned, hereby aff rue and accurate	Musky Green Solids Scum  ional comments (ind to stabilize bank) lely for removal of a reconditions. Conseques but may point to conditions.	Chemical Gray Fine sediments Foam  ncluding informatedownstream. Electroational use designently, this informateditions that need further my knowledge,	None  Milky  None  None  None  tion from intectric fence.  gnation but rathe ion is not intend ther analysis or  that all infor	Other: brown Other: Other:  or is to provide a more ed to directly influence a that effect another use.	this UAA
ater Chara Odor: Color: Bottom Der Surface Der Der Surface Der	cteristics*: (Mark Sewage Clear Oosit: Sludge Oosit: Oil Please attach addite ream, fencing use on is not to be used so understanding of wate ecreation use analysis gned, hereby aff rue and accurate	Musky Green Solids Scum  ional comments (ind to stabilize bank) lely for removal of a reconditions. Conseques but may point to conditions.	Chemical Gray Fine sediments Foam  ncluding informatedownstream. Electroational use designently, this informateditions that need further my knowledge,	None  Milky  None  None  None  tion from intectric fence.  gnation but rathe ion is not intend ther analysis or  that all infor	Other: brown Other: Other:  or is to provide a more ed to directly influence a that effect another use.	this UAA
ater Chara Odor: Color: Bottom Der Surface Der Der Surface Der	cteristics*: (Mark Sewage Clear Oosit: Sludge Oosit: Oil Please attach addite ream, fencing use on is not to be used so understanding of wate ecreation use analysis gned, hereby aff rue and accurate	Musky Green Solids Scum  ional comments (ind to stabilize bank) lely for removal of a reconditions. Conseques but may point to conditions.	Chemical Gray Fine sediments Foam  ncluding informatedownstream. Electroational use designently, this informateditions that need further my knowledge,	None  Milky  None  None  None  tion from intectric fence.  gnation but rathe ion is not intend ther analysis or  that all infor	Other: brown Other: Other: erviews) to this form.  or is to provide a more ed to directly influence a that effect another use.	this UAA



Photo ID 1008-001US: Upstream (Hinkson Creek)



Photo ID 1008-001DS: Downstream (Hinkson Creek)



Photo ID 1008-001O: Riprap and pipe (Hinkson Creek)

## **Data Sheet B - Site Characterization**

(A separate data sheet must be completed for each site)

	Missouri WBID #: 1008-	002		Site Locati	Site Location Description: Hinkson Creek at road crossing in E 1/2			
	Site GPS Coordinates: 5		т			R12W; BID 22 - Boone Co		
			<u> </u>		Facility Names Car Table 2			
	Date & Time: 5/26/05 - 3				Facility Name: See Table 2			
	Personnel: Tim J. Fandre	У		Permit Nu	nber: \$	See Table 2		
	Current Weather Condition	ons: Partly cloudy	- 70s	Weather C	onditio	ons for Past 7 days: Last ra	in on May 22	
	Photo Ids: Upstream: 10	08-002US Dov	vnstream:	1008-002DS	Other:	1008-002O		
Us	es Observed*:							
	Swimming	☐ Skin diving		SCUBA diving		☐ Tubing	☐ Water skiing	
	☐ Wind surfing	☐ Kayaking		Boating		□ Wading	Rafting	
	Hunting	☐ Trapping		Fishing		☑ None of the above	Other:	
	rrounding Condition	<b>S*:</b> (Mark all that p	promote o	r impede recreati	onal us	es. Attach photos of evider	nce or unusual	
ter				2 4' 1	1	☐ Urban areas		
	☐ City/county parks	Playgrounds		C conservation la	nas		Campgrounds	
	☐ Boating accesses	☐ State parks	☐ Natio	onal forests		☐ Nature trails	☐ Stairs/walkway	
	☐ No trespass sign	☐ Fence	☐ Steep	p slopes		Other:		
Εv	idence of Human Use	·*•						
	⊠ Roads	☐ Foot paths/pri	nts	Dock/platform	1	☐ Livestock Watering	RV / ATV Tracks	
	☐ Rope swings	☐ Camping Sites	: [	☐ Fire pit/ring		☐ NPDES Discharge	☐ Fishing Tackle	
	Other:							
	·					·		

<sup>\*</sup>Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

## Data Sheet B - Site Characterization

## Page Two – WBID #<u>1008-002</u>:

eam Morpholo; Upstream View	Physical D	Dimensions:				
☐ Riffle Width		Length (ft):	Avg. Depth (	ft):	Max. Depth (ft):	
Run Width	(ft):	Length (ft):	Avg. Depth (	ft):	Max. Depth (ft):	····
Pool Width	(ft): 10	Length (ft): 8.0	Avg. Depth (	ft): 0.5	Max. Depth (ft): (	),5
Flow Preser	t? 🛚 Yes	□ No	Estimated (ft	³/sec): < 1		
Downstream Vi	ew Physica	al Dimensions:				
☐ Riffle Width		Length (ft):	Avg. Depth (	ft):	Max. Depth (ft):	·
Run Width	(ft):	Length (ft):	Avg. Depth (	ft):	Max. Depth (ft):	
⊠ Pool Width	(ft): 12	Length (ft): 15	Avg. Depth (	<del>-</del>	Max. Depth (ft): (	0.4
☐ Flow Preser	<del></del>	□No	Estimated (ft			
10% Cobbi	<del>-</del> -	% Gravel	lgal growth at the uses	% Silt	90% Mud/Clay	% Bedrock
	<del>-</del> -	ount of vegetation or a	lgal growth at the asse			% Dearlock
uatic Vegetatio Very little. ater Characteri	n*: (note am	ount of vegetation or a		ssment site)		% Dearlock
uatic Vegetatio Very little.	n*: (note am stics*: (Mar	ount of vegetation or a  k all that apply.)  Musky	☐ Chemical	ssment site)	Other:	% Decirous
uatic Vegetatio Very little.  ater Characteri Odor:	n*: (note am	ount of vegetation or a	☐ Chemical	Soment site)  None  Milky	Other:	% Bedriock
uatic Vegetatio Very little.  Atter Characteri Odor: Color: Bottom Deposit: Surface Deposit;	stics*: (Mar Sewage Clear Sludge Oil	ount of vegetation or a  k all that apply.)  Musky Green Solids Scum	Chemical Gray Fine sediments Foam	None Milky None None None	Other: Other: brown Other:	
uatic Vegetatio Very little.  ater Characteri Odor: Color: Bottom Deposit: Surface Deposit: mments: Please ot of leaning tre his information is no aprehensive underst ision on the recreati the undersigned tasheet is true a	stics*: (Mar Sewage Clear Sludge Oil attach addies due to street to be used sending of waten use analyse, hereby af	k all that apply.)  Musky Green Solids Scum  itional comments (ream bank erosion, olely for removal of a ter conditions. Consequis but may point to confirm to the best of te.	Chemical Gray Fine sediments Foam including information ditions that need furth f my knowledge, the	None None None None non from intender analysis or	Other: brown Other:	. this UAA



Photo ID 1008-002US: Upstream (Hinkson Creek)



Photo ID 1008-002DS: Downstream (Hinkson Creek)



Photo ID 1008-002O: Debris on center bridge pier (Hinkson Creek)

## **Data Sheet B - Site Characterization**

(A separate data sheet must be completed for each site)

Missouri WBID #: 1008-	-003		Site Location Description: Hinkson Creek at road crossing in SE 1/4			
Site GPS Coordinates: 5	66910E; 43219021	N	Section 11, T49	N, R12W; BID 19 - Boone (	County	
Date & Time: 5/26/05 - 1	:25 p.m.		Facility Name: See Table 2			
Personnel: Tim J. Fandre	ey		Permit Number:	See Table 2		
Current Weather Condition	ons: Partly Cloud	y - 70s	Weather Conditi	ons for Past 7 days: Last ra	in on May 22	
Photo Ids: Upstream: 10	08-003US Dov	wnstream: 100	8-003DS Other	:		
Ob 14.	•		1			
_	☐ Skin diving		JBA diving	☐ Tubing	☐ Water skiing	
				+	Rafting	
		+			Other:	
	11 0					
rrounding Condition	<b>S*:</b> (Mark all that :	promote or imp	pede recreational u	ses. Attach photos of evide	nce or unusual	
ns of interest.)						
☐ City/county parks	☐ Playgrounds	☐ MDC cor	nservation lands	☐ Urban areas	☐ Campgrounds	
☐ Boating accesses	☐ State parks	☐ National	forests	☐ Nature trails		
☐ No trespass sign			iorests	inature traits	☐ Stairs/walkway	
	☐ Fence	☐ Steep slo		Other: Heavy vegetation	☐ Stairs/walkway	
dence of Human Use		☐ Steep slo		Other: Heavy	☐ Stairs/walkway	
idence of Human Use		nts D	pes ock/platform	Other: Heavy	Stairs/walkway  RV / ATV Tracks	
	e*:	nts D	pes	Other: Heavy vegetation		
	Site GPS Coordinates: 5  Date & Time: 5/26/05 - 1  Personnel: Tim J. Fandre Current Weather Condition Photo Ids: Upstream: 10  es Observed*:  Swimming Hunting Describe: (include number  rounding Condition as of interest.)  City/county parks	Date & Time: 5/26/05 - 1:25 p.m.  Personnel: Tim J. Fandrey  Current Weather Conditions: Partly Cloudy Photo Ids: Upstream: 1008-003US	Site GPS Coordinates: 566910E; 4321902N  Date & Time: 5/26/05 - 1:25 p.m.  Personnel: Tim J. Fandrey  Current Weather Conditions: Partly Cloudy - 70s  Photo Ids: Upstream: 1008-003US Downstream: 100  Pes Observed*:  Swimming Skin diving SCU  Wind surfing Kayaking Boa  Hunting Trapping Fisl  Describe: (include number of individuals recreating, frequence of individuals recreating)  Frounding Conditions*: (Mark all that promote or imposed interest.)  City/county parks Playgrounds MDC conditions	Site GPS Coordinates: 566910E; 4321902N  Date & Time: 5/26/05 - 1:25 p.m.  Personnel: Tim J. Fandrey  Current Weather Conditions: Partly Cloudy - 70s  Photo Ids: Upstream: 1008-003US  Downstream: 1008-003DS  Other  Setion 11, T491  Permit Number: 9  Weather Conditions: Partly Cloudy - 70s  Weather Conditions: Partly Partl	Site GPS Coordinates: 566910E; 4321902N  Date & Time: 5/26/05 - 1:25 p.m.  Personnel: Tim J. Fandrey  Permit Number: See Table 2  Current Weather Conditions: Partly Cloudy - 70s  Photo Ids: Upstream: 1008-003US  Downstream: 1008-003DS  Other:  See Table 2  Current Weather Conditions for Past 7 days: Last rate of the conditions for Pas	

<sup>\*</sup>Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

## Data Sheet B - Site Characterization

## Page Two - WBID #1008-003:

ream Mor <sub>l</sub> Upstream	View Phy	sical D	imensi	ons:					
Riffle	Width (ft):			ngth (ft):		Avg. Depth	(ft):	Max. Depth (ft	):
Run	Width (ft):		Lei	ngth (ft):	<u></u>	Avg. Depth	(ft):	Max. Depth (ft	
⊠ Poel	Width (ft):	12	Lei	ngth (ft):	15	Avg. Depth	(ft): 0.3	Max. Depth (ft	
Flow	Present?	⊠ Yes	☐ No			Estimated (f	t <sup>3</sup> /sec): < 1		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Downstrea	ım View l	Physical	l Dime	nsions:					
Riffle	Width (ft):			ngth (ft):	<del></del>	Avg. Depth	(ft):	Max. Depth (ft	):
Run	Width (ft):		Ler	ngth (ft):	<u>.</u>	Avg. Depth		Max, Depth (ft	······································
⊠ Pooi	Width (ft):	10	Lei	igth (ft):	12	Avg. Depth		Max. Depth (ft	<del></del>
Flow	Present?	⊠ Yes	☐ No				t <sup>3</sup> /sec): same a		). U.U
ıbstrate*:					524.6	·			
	~ 1 1	~ .	% Gravel	1 l	5% Sar	id .	% Silt	% Mud/Clay	20% Bedrock
uatic Vege Algae on ro	cks.	note amo	unt of ve	egetation o			essment site)		#500 Bedico
quatic Vege	etation*: (	note amo	unt of ve	egetation o	or algal gro				
Algae on ro	etation*: (cks.	note amo	unt of ve	egetation c	or algal gro	wth at the asso	None     Non	Other:	
Algae on ro  ater Chara	etation*: (cks.	note amo  *: (Mark Sewage	unt of ve	egetation of apply.) Musky	or algal gro	wth at the asse	⊠ None □ Milky	Other:	
Algae on ro  ater Chara Odor: Color: Bottom Dep	cks.  acteristics  cosit:	*: (Mark Sewage Clear Sludge Oil	all that	apply.) Musky Green Solids Scum	or algal gro	nemical ay ne sediments	None     Milky     None     None	Other: Other: Other: Other:	vn
ater Chara Odor: Color: Bottom Der Surface Der Omments: F	etation*: (cks.	*: (Mark Sewage Clear Sludge Oil ch addit e used so g of wate e analysis	all that a	apply.) Musky Green Solids Scum omments removal of ons. Cons	Cl Cl Fo	memical ray ne sediments ram ng informat ral use design his information	None ☐ Milky ☑ None ☐ None ☐ nation from intendents not intendent analysis or t	Other: Other: brov	rm.
ater Chara Odor: Color: Bottom Der Surface Der	etation*: (cks.	*: (Mark Sewage Clear Sludge Oil ch addit e used so g of wate e analysis	all that:	apply.) Musky Green Solids Scum omments removal of ons. Cons	CI Granding	memical ray ne sediments ram ng informat ronal use design his information that need furth	None Milky None None nation from intendent is not intendent analysis or the	Other: Other: brow Other: Other: crviews) to this for is to provide a more ded to directly influence that effect another use	on this UAA



Photo ID 1008-003US: Upstream (Hinkson Creek)



Photo ID 1008-003DS: Downstream (Hinkson Creek)

## **Data Sheet B - Site Characterization**

(A separate data sheet must be completed for each site)

	Missouri WBID #: 1008-	004			Site Location Description: Hinkson Creek at road crossing on South line Section 18, T49N, R12W; BID 18 - Boone County				
	Site GPS Coordinates: 5	65694E; 4321086N	1	line Section	n 18, T	49N, R12W; BID 18 - Boo	one County		
	Date & Time: 5/26/05 - 1	:06 p.m.		Facility Na	Facility Name: See Table 2				
	Personnel: Tim J. Fandre	Permit Nur	Permit Number: See Table 2						
	Current Weather Condition	ons: Partly Cloudy	7 - 70s	Weather C	onditio	ons for Past 7 days: Last ra	in on May 22		
	Photo Ids: Upstream: 10	08-004US Dow	vnstream:	1008-004DS	Other:				
ļ		<u> </u>							
Us	es Observed*:		<del></del>						
	☐ Swimming	☐ Skin diving		SCUBA diving		☐ Tubing	☐ Water skiing		
	☐ Wind surfing	☐ Kayaking		Boating		□ Wading	Rafting		
	Hunting	☐ Trapping	_ I	Fishing		None of the above	Other:		
	rrounding Condition as of interest.)	<b>s*:</b> (Mark all that բ	promote or	impede recreation	onal us	es. Attach photos of evider	nce or unusual		
	☐ City/county parks	Playgrounds	☐ MDC	conservation la	nds	Urban areas	☐ Campgrounds		
	☐ Boating accesses	☐ State parks	☐ Nation	nal forests		☐ Nature trails	☐ Stairs/walkway		
	No trespass sign	⊠ Fence	☐ Steep	slopes		Other:			
Ev	idence of Human Use	o*•							
	⊠ Roads	☐ Foot paths/pri	nts	Dock/platform	l	☐ Livestock Watering	RV / ATV Tracks		
	☐ Rope swings	☐ Camping Sites		Fire pit/ring		☐ NPDES Discharge	☐ Fishing Tackle		
	Other:								

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## Data Sheet B - Site Characterization

## Page Two - WBID #1008-004:

tream Morp ' Upstream		vsical D	imensions:				
	Width (ft):		Length (ft); 3.0	Avg. Dep	th (ft): 0.1	Max. Depth (ft):	0.1
Run	Width (ft):		Length (ft):	Avg. Dep	th (ft):	Max. Depth (ft):	
Pool	Width (ft):		Length (ft);	Avg. Dep	<del></del>	Max. Depth (ft):	<del></del>
Flow	Present?	X Yes	□No		(ft <sup>3</sup> /sec): < 1	Man. Dopui (II).	<u> </u>
Downstrea	m View	Physics	l Dimensions:	<u> </u>			
	Width (ft):		Length (ft):	Avg. Dep	h (ft):	Max. Depth (ft):	<del></del>
	Width (ft):		Length (ft): 4.0		th (ft): 0.1		
	Width (ft):					Max. Depth (ft)	
			Length (ft):	Avg. Dep		Max. Depth (ft)	<u> </u>
⊠ Flow	Present?	⊠ Yes	□ No	Estimated	(ft³/sec): < 1		
uhetroto*+ /	(Those redu	مه مه میاط	add up to 100%.)				
	Cobble		% Gravel	% Sand	% Silt	% Mud/Clay	95% Bedroo
None.	etation*:	(note amo	ount of vegetation or a	lgal growth at the a	ssessment site)		
None.		5*: (Marl	( all that apply.)				
None.  Vater Chara Odor:	ncteristics	5*: (Mark	( all that apply.)	☐ Chemical	⊠ None	Other:	
None.  Vater Chara Odor: Color:	ncteristics	5*: (Mark Sewage Clear	( all that apply.)  Musky Green	Chemical	⊠ None	Other: brow	n
Vater Chara Odor: Color: Bottom Dep	octeristics	s*: (Mark Sewage Clear Sludge	( all that apply.)  Musky Green Solids	Chemical Gray Fine sedimen	⊠ None □ Milky s ⊠ None	Other: brow	n
Vater Chara Odor: Color:	octeristics	5*: (Mark Sewage Clear	( all that apply.)  Musky Green	Chemical	⊠ None	Other: brow	n
None.  Vater Chara Odor: Color: Bottom Dep Surface Dep	oosit:	5*: (Mark   Sewage   Clear   Sludge   Oil	( all that apply.)  Musky Green Solids	Chemical Gray Fine sedimen Foam		Other: brow	
None.  Vater Chara Odor: Color: Bottom Dep Surface Dep Comments: P Chis information comprehensive usecision on the re-	oosit:  Please atta on is not to landerstanding	S*: (Mark Sewage Clear Sludge Oil och addi	all that apply.)  Musky Green Solids Scum  tional comments (i	Chemical Gray Fine sedimen Foam Cluding inform recreational use des yently, this informa	None	Other: brow Other: Other: Other: rviews) to this for is to provide a more do to directly influence that effect another use.	m.
None.  Vater Chara Odor: Color: Bottom Dep Surface Dep Comments: P Chis information comprehensive usersion on the re-	oosit: Dosit: Do	Sewage Clear Sludge Oil Ach additate be used so ng of wate se analysi reby afi	Musky  Green Solids Scum  tional comments (i	Chemical Gray Fine sedimen Foam Cluding inform recreational use des yently, this informa	None	Other: brow Other: Other: Other: rviews) to this for is to provide a more do to directly influence that effect another use.	m.
None.  Vater Chara Odor: Color: Bottom Dep Surface Dep Comments: P Chis information comprehensive usecision on the re-	oosit: Doosit:	s*: (Mark Sewage Clear Sludge Oil och addi och addi och addi och addi och addi och addi	Musky    Musky   Green   Solids   Scum  tional comments (i	Chemical Gray Fine sedimen Foam Tecreational use despently, this informations that need further than the control of the contro	None	Other: brow Other: Other: Other: ris to provide a more of to directly influence that effect another use.	m. a on this UAA
None.  Vater Chara Odor: Color: Bottom Dep Surface Dep Comments: P Chis information comprehensive usersion on the re-	oosit: Doosit:	s*: (Mark Sewage Clear Sludge Oil och addi och addi och addi och addi och addi och addi	Musky  Green Solids Scum  tional comments (i	Chemical Gray Fine sedimen Foam Tecreational use despently, this informations that need further than the control of the contro	None	Other: brow Other: Other: Other: ris to provide a more of to directly influence that effect another use.	m. a on this UAA



Photo ID 1008-004US: Upstream (Hinkson Creek)



Photo ID 1008-004DS: Downstream (Hinkson Creek)

## **Data Sheet B - Site Characterization**

(A separate data sheet must be completed for each site)

	Missouri WBID #: 1008-	-005		Site Location Description: Hinkson Creek at road crossing in SE 1/4 Section 15, T49N, R12W - Boone County			
	Site GPS Coordinates: 5	65268E; 4319448N	I	Section 15, 149N	I, R12W - Boone County		
	Date & Time: 6/26/05 - 1	:30 p.m.		Facility Name: See Table 2			
	Personnel: Alan J. Fandr	ey		Permit Number: See Table 2			
	Current Weather Condition	ons: Clear - 90s		Weather Condition	ons for Past 7 days: Last ra	in on June 13	
	Photo Ids: Upstream: US	S1 & US2 Dow	nstream: 100	8-005DS Other:			
Us	es Observed*:						
	Swimming	☐ Skin diving	□ SCU	JBA diving	☐ Tubing	☐ Water skiing	
	☐ Wind surfing	☐ Kayaking	□ Воа	ating	Wading	Rafting	
	☐ Hunting	☐ Trapping	☐ Fish	ning	☑ None of the above	Other:	
Su	rrounding Condition	<b>S*:</b> (Mark all that p	promote or imp	oede recreational us	ses. Attach photos of evider	nce or unusual	
iter	ns of interest.)						
	☐ City/county parks	☐ Playgrounds	☐ MDC cor	servation lands	☐ Urban areas	☐ Campgrounds	
	☐ Boating accesses	☐ State parks	☐ National	forests	☐ Nature trails	☐ Stairs/walkway	
	☐ No trespass sign	⊠ Fence	⊠ Steep slop	pes	Other: Agriculture		
Ev	idence of Human Use	2*•					
	⊠ Roads	☐ Foot paths/prii	nts 🔲 D	ock/platform	Livestock Watering	RV / ATV Tracks	
	☐ Rope swings	☐ Camping Sites	Fi	re pit/ring	☐ NPDES Discharge	☐ Fishing Tackle	
	☐ Other: Surface water	monitoring Point 8	07				

<sup>\*</sup>Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

## Data Sheet B - Site Characterization

## Page Two - WBID #1008-005:

St	ream Morph <u>Upstre</u> am V		ysical D	imensions:				
	⊠ Riffle V	Width (ft)	: 5	Length (ft): 10	Avg. Depth	(ft): < 0.1	Max. Depth (ft	): 0,2
	☐ Run V	Width (ft)	:	Length (ft):	Avg. Depth	(ft):	Max. Depth (ft	);
	⊠ Pool V	Width (ft)	: 30-40	Length (ft): 80	Avg. Depth	(ft): 1.2	Max. Depth (ft	): 2.0
	⊠ Flow P	Present?	⊠ Yes	□ No	Estimated (	ft <sup>3</sup> /sec): < 1		<u>′</u>
	Downstream	n View	Physica	l Dimensions:			-	<u> </u>
	l	Width (ft)		Length (ft):	Avg. Depth	(ft):	Max. Depth (ft	):
	Run V	Width (ft)	<del></del> -	Length (ft):	Avg. Depth		Max, Depth (ft	<del></del>
	Pool V	Width (ft)	: 30-40	Length (ft): 200	Avg. Depth	<u> </u>	Max. Depth (ft	<u> </u>
	⊠ Flow P	resent?	⊠ Yes	□No		ft <sup>3</sup> /sec): see ab		<i>j.</i> 2.1
_								
St	1 <b>bstrate*:</b> (1			add up to 100%.)	0/ 01	24 215		
	20%	obble		% Gravel	% Sand	% Silt	50% Mud/Clay	30% Bedrock
W	ater Charac	teristic	s*: (Marl	all that apply.)	Chemical	None ⊠	Other:	
	Color:	<u>-</u> -	Clear	Green	Gray	Milky	<del></del>	<del></del>
	Bottom Depo	sit:	Sludge	Solids	Fine sediments	✓ None	Other: brow	<u>vn</u>
	Surface Depo		] Oil	Scum	Foam	None	Other:	
*Ti cor dec I, i	epth of pools his information uprehensive un cision on the rec the undersig tasheet is tre	is not to derstandi creation u gned, he ue and	t to brid be used so ng of wate se analysi creby aff accurate	ge likely due to see plely for removal of a rear conditions. Conseques but may point to confirm to the best of e.	ecreational use designently, this information ditions that need furt my knowledge,	nation but rathon is not intend her analysis or that all info	erviews) to this for er is to provide a more led to directly influenc that effect another use rmation reported	e a on this UAA
Or	ganization:_	<del></del> .	B	£.C.	Positic	on:	5.	



Photo ID 1008-005US1: Upstream (Hinkson Creek)



Photo ID 1008-005US2: Upstream (Hinkson Creek—looking downstream)



Photo ID 1008-005DS: Downstream (Hinkson Creek)

## **Data Sheet B - Site Characterization**

(A separate data sheet must be completed for each site)

	Missouri WBID #: 1008-		Site Location Description: Hinkson Creek at road crossing in West							
	Site GPS Coordinates: 50	1/2 Section	1/2 Section 22, T49N, R12W; BID 113 - Boone County							
·	Date & Time: 5/27/05 - 4	Facility Na	me: S	ee Table 2						
·	Personnel: Alan J. Fandr	Permit Nun	nber: \$	See Table 2						
ŀ	Current Weather Condition	ons: Cloudy - 70s;	light rain	Weather Co	onditio	ons for Past 7 days: Last ra	in on May 22			
•	Photo Ids: Upstream: 10	08-006US Dov	vnstream: 1	1008-006DS	Other:					
Us	Uses Observed*:									
	Swimming	☐ Skin diving		SCUBA diving		☐ Tubing	☐ Water skiing			
Î	☐ Wind surfing	☐ Kayaking	□ I	Boating		□ Wading	Rafting			
•	Hunting	☐ Trapping	□ F	Fishing		None of the above	Other:			
	Surrounding Conditions*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual									
iten	ns of interest.)									
-	City/county parks	Playgrounds		conservation lan	nds	Urban areas	Campgrounds			
-	□ Boating accesses       □ State parks       □ National         □ No trespass sign       □ Fence       ☒ Steep slo					☐ Nature trails ☐ Other: landfill entrance	Stairs/walkway			
Ev	idence of Human Use	2*:				VIII III V				
	Roads	Foot paths/pri		Dock/platform		Livestock Watering	RV / ATV Tracks			
	Rope swings	☐ Camping Sites	$\Box$	Fire pit/ring		☐ NPDES Discharge	☐ Fishing Tackle			
	Other:									

<sup>\*</sup>Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

## Data Sheet B - Site Characterization

## Page Two - WBID #1008-006:

Stream Morphology Upstream View I		nsions				
Riffle Width (		Length (ft):	Avg. De	oth (ft):	Max. Depth (ft):	·
Run Width (	(t); 40	Length (ft): 300		oth (ft): 1.0	Max. Depth (ft):	1.5
Pool Width (	 ît):	Length (ft);	Avg. De	· · · · · · · · · · · · · · · · · · ·	Max. Depth (ft):	410
☐ Flow Present	·	No		d (ft <sup>3</sup> /sec): see be		<del></del>
			<del>.</del>			
Downstream Vie		mensions:	<del> </del>			·
Riffle Width (	it):	Length (ft):	Avg. Dej	pth (ft):	Max. Depth (ft);	
Run Width (	ît):	Length (ft):	Avg. De	oth (ft);	Max. Depth (ft):	
Pool Width (	ft): 50	Length (ft): 30	O Avg. Dej	oth (ft): 1.0	Max. Depth (ft):	1.5
☐ Flow Present	Yes 🗌	No	Estimate	d (ft <sup>3</sup> /sec): 5 - 10	cfs	
0.1.4.4.		· · · · · ·		,		
Substrate*: (These v	alues should add		10% Sand	1007 6:14	6001 14 1/01	
1070 CODDIC	10% G.	avei	10% Sand	10% Silt	60% Mud/Clay	% Bedrock
Water Characterist	ics*: (Mark all	hat apply.)				
Odor:	Sewage	Musky	Chemical	⊠ None	Other:	
Color:	⊠ Clear	Green	Gray	Milky	Other:	
Bottom Deposit:	Sludge	Solids	Fine sedimer		Other:	
Surface Deposit:	☐ Oil	Scum	☐ Foam	None     Non	Other:	
*This information is not comprehensive understar decision on the recreation.  I, the undersigned, datasheet is true an	to be used solely ding of water con use analysis but hereby affirm daccurate.	for removal of a nditions. Consect may point to contact to the best o	recreational use de quently, this inform nditions that need f my knowledg	signation but rath ation is not intend urther analysis or e, that all info	ded to directly influence	a on this UAA
Organization:	BE	<u> </u>	Posi	tion: <u>Es</u>		<del></del>



Photo ID 1008-006US: Upstream (Hinkson Creek)



Photo ID 1008-006DS: Downstream (Hinkson Creek)

## **Data Sheet B - Site Characterization**

(A separate data sheet must be completed for each site)

Missouri WBID #: 1008-	007		Site Location Description: Hinkson Creek at road crossing in NW 1/4				
Site GPS Coordinates: 56	64280E; 4317000N		Section 27, T49N, R12W; BID 114 - Boone County				
Date & Time: 6/27/05			Facility Name: S	See Table 2			
Personnel: Alan J. Fandre	ey		Permit Number:	See Table 2			
Current Weather Condition	ons: Clear; 90s		Weather Condition	ons for Past 7 days: Last ra	in on June 13		
Photo Ids: Upstream: 10	08-007US Down	nstream: 100	8-007DS Other	:			
	,		1				
Uses Observed*:	_			Γ_			
Swimming	☐ Skin diving	☐ SCU	JBA diving	☐ Tubing	☐ Water skiing		
☐ Wind surfing	☐ Kayaking	☐ Boa	ting	□ Wading	Rafting		
☐ Hunting	☐ Trapping	☐ Fish	ning	None of the above	Other:		
Surrounding Conditions tems of interest.)	<b>s*:</b> (Mark all that p	romote or imp	oede recreational u	ses. Attach photos of evider	nce or unusual		
☐ City/county parks	Playgrounds	☐ MDC con	servation lands	☐ Urban areas	☐ Campgrounds		
☐ Boating accesses	☐ State parks	☐ National	forests	☐ Nature trails	☐ Stairs/walkway		
☐ No trespass sign	Fence	☐ Steep slop					
Evidence of Human Use	*•						
⊠ Roads	☐ Foot paths/prin	ts D	ock/platform	☐ Livestock Watering	RV / ATV Tracks		
☐ Rope swings	☐ Camping Sites	☐ Fi	re pit/ring	☐ NPDES Discharge	☐ Fishing Tackle		
Other: Litter under br	idge including chair	and tarp - po	ssibly was just dur	nped			

<sup>\*</sup>Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

## Data Sheet B - Site Characterization

Page Two - WBID #1008-007:

Upstream View		l Dimensions:					
	(ft): 5	Length (ft):	10-20 A	Avg. Depth (ft)	): 0.3	Max. Depth	(ft): 0.5
Run Widti	ı (ft);	Length (ft):		vg. Depth (ft)		Max. Depth	···
Pool Widt	(ft): 40-5	0 Length (ft):		Avg. Depth (ft)		Max. Depth	<del></del>
⊠ Flow Prese	nt? 🛛 Y	es No		Estimated (ft <sup>3</sup> /s	<u>-</u>	Dopat	(1). 5.0
Downstream V	ow Phys	ical Dimensions:					
	(ft): 10	Length (ft):		ver Donah (A)			(0)
Run Widtl	· · · <u> </u>		<del></del>	vg. Depth (ft)		Max. Depth	
	<del>``</del>	Length (ft):	<del></del> -	vg. Depth (ft)		Max. Depth	<del></del>
	(ft): 40-5			vg. Depth (ft)	·	Max. Depth	(ft): 1.6
☐ Flow Prese	ıt? 🛚 🔀 Y	es No	F	stimated (ft <sup>3</sup> /s	ec): see abo	ove	
Substrate*: (These	values sho	uld add un to 100%	`				
% Cobb		25% Grave!	25% Sand	<del>_</del>	% Silt	% Mud/Clay	50% Bedrock
Water Characteri					·		
Odor:	Sewa	<u> </u>	Chen	nical [	None	Other:	
Color:	☐ Clean		☐ Gray		Milky	Other:	
Bottom Deposit: Surface Deposit:	Sludį Oil	<del></del>			None	Other:	
Surface Deposit:	<u> </u>	Scum	Foan	ı <u> </u>	None	Other:	
Comments: Please Deep pool likely for *This information is no comprehensive understated decision on the recreated.	rmed by t to be used anding of v	scour around brid  solely for removal water conditions. Co.	ge. of a recreationansequently, this	l use designati	on but rather	r is to provide a mo	ore
I, the undersigned datasheet is true a	, hereby nd accur	affirm to the bes	st of my kno	wledge, tha	t all infor	mation reporte	ed on this UAA
Signed:	uan.	A any		_Date:	7-28	-05	
Organization:		BE	<i>C</i>	_ Position: _	Er	19.	
						_	



Photo ID 1008-007US: Upstream (Hinkson Creek)



Photo ID 1008-007DS: Downstream (Hinkson Creek)

## **Data Sheet B - Site Characterization**

(A separate data sheet must be completed for each site)

	Missouri WBID #: 1008-	.008		Site Location Description: Hinkson Creek at road crossing in SW 1/4					
•	Site GPS Coordinates: 5	62476E; 4315087N	ſ	Section 33, T49N, R12W; BID 3 - Boone County					
•	Date & Time: 5/25/05 - 9	a.m.		Facility Name:	See Table 2				
•	Personnel: Tim J. Fandre	у		Permit Number:	See Table 2				
•	Current Weather Condition	ons: Sunny - 70s		Weather Conditi	ions for Past 7 days: Last ra	in on May 22			
•	Photo Ids: Upstream: 10	08-008US Dow	nstream: 100	8-008DS Other	r: 1008-008O				
Us	Uses Observed*:								
	Swimming	☐ Skin diving	□ SCU	JBA diving	☐ Tubing	☐ Water skiing			
	☐ Wind surfing	☐ Kayaking	☐ Boa	uting	Wading	Rafting			
	Hunting	☐ Trapping	☐ Fish	ning	None of the above	Other:			
Su	Surrounding Conditions*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual								
iten	ns of interest.)								
	☐ City/county parks	☐ Playgrounds	☐ MDC cor	nservation lands	☐ Urban areas	☐ Campgrounds			
	☐ Boating accesses	☐ State parks	☐ National	forests	☐ Nature trails	☐ Stairs/walkway			
	☐ No trespass sign	Fence	⊠ Steep slop	pes	Other:				
Ev	idence of Human Use	)*•							
	Roads	☐ Foot paths/prin	nts D	ock/platform	☐ Livestock Watering	RV / ATV Tracks			
	☐ Rope swings	☐ Camping Sites	☐ Fi	re pit/ring	☐ NPDES Discharge	☐ Fishing Tackle			
	Other: Litter on bank	of creek, graffiti un	der bridge.						

<sup>\*</sup>Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

## Data Sheet B - Site Characterization

## Page Two - WBID #1008-008:

Stream Morpholo Upstream View		Dimensions:				
	ı (ft): 20	Length (ft): 12	Avg. De	epth (ft): 0.2	Max. Depth (ft	)· 0.4
Run Widtt	ı (ft):	Length (ft):	Avg. De	<u> </u>	Max, Depth (ft	<del>_</del> ·
Pool Width	ı (ft):	Length (ft):	Avg. De	epth (ft):	Max. Depth (ft)	<u> </u>
⊠ Flow Prese	ıt? ⊠ Yes	□No		ed (ft³/sec): 10-15	Time. Dopin (II)	<del></del>
Downstream V	ew Physica	l Dimensions:		. ,		
Riffle Width		Length (ft):	Avg. De	epth (ft):	Max. Depth (ft)	۸۰
⊠ Run Width	(ft): 18	Length (ft): 22		pth (ft): 0.4	Max. Depth (ft)	
☐ Pool Width	(ft):	Length (ft):	Avg. De		<del></del> -	<del></del>
⊠ Flow Preser		□ No		ed (ft <sup>3</sup> /sec): see abo	Max. Depth (ft)	); 
<u> </u>		· · · · · · · · · · · · · · · · · · ·		d (17 /sec). see abo	,	
Substrate*: (These	values should	add up to 100%.)				
5% Cobbl	e 5	% Gravel	% Sand	% Silt	% Mud/Clay	90% Bedrock
Water Characteri	stics*: (Mark	all that apply.)  Musky	☐ Chemical	None.		····
Color:	Clear	Green	Gray	None None	Other:	
Bottom Deposit:	Sludge	Solids	Fine sedimen	☐ Milky nts ☑ None	Other: brow	'n
Surface Deposit:	Oil	Scum	⊠ Foam	None	Other:	
Comments: Please Exposed bedrock of *This information is no	n upstream s t to be used so	side of bridge. Jely for removal of a re	ecreational use de	signation but rather	r is to provide a more	
comprehensive understated consistence on the recreation of the recreation of the recreation of the undersigned datasheet is true as a consistence of the undersigned.  Signed:  Organization:	on use analysis , hereby aff nd accurate	s but may point to cond irm to the best of e.	litions that need f	e, that all infor	mation reported	on this UAA



Photo ID 1008-008US: Upstream (Hinkson Creek)



Photo ID 1008-008DS: Downstream (Hinkson Creek)



Photo ID 1008-008O: Exposed pipe upstream (Hinkson Creek)

## **Data Sheet B - Site Characterization**

(A separate data sheet must be completed for each site)

Missouri WBID #: 1008-	000		Site Location Description: Hinkson Creek at road crossing in N 1/2						
		т	Section 8, T48N, R12W; BID 5 - Boone County						
Site GPS Coordinates: 5		<b>N</b>							
Date & Time: 5/25/05 - 1	0:35 a.m.		Facility Name:	See Table 2					
Personnel: Tim J. Fandre	У		Permit Number:	: See Table 2					
Current Weather Condition	ons: Sunny - 70s		Weather Condit	tions for Past 7 days: Last ra	in on May 22				
Photo Ids: Upstream: 10	08-009US Dow	vnstream: 100	08-009DS Othe	er:					
	l l		1						
Uses Observed*:									
Swimming	☐ Skin diving		UBA diving	☐ Tubing	☐ Water skiing				
☐ Wind surfing	☐ Kayaking	□ Воа	ating	Wading	Rafting				
Hunting	☐ Trapping	☐ Fisl	hing	☑ None of the above	Other:				
Describe: (include numbe	r of individuals rec	reating freque	ency of use nhoto	-documentation of evidence	of recreational uses etc.)				
Surrounding Conditionstems of interest.)	urrounding Conditions*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual								
☐ City/county parks	Playgrounds	☐ MDC coı	nservation lands	☐ Urban areas	Campgrounds				
☐ Boating accesses	☐ State parks	☐ National	forests	☐ Nature trails	☐ Stairs/walkway				
☐ No trespass sign	☐ Fence		pes	Other:					
Evidence of Human Use	•*•	1		,					
Roads		nts 🗆 D	ock/platform	☐ Livestock Watering	RV / ATV Tracks				
☐ Rope swings	☐ Camping Sites	□ F	ire pit/ring	☐ NPDES Discharge	☐ Fishing Tackle				
Other:									

<sup>\*</sup>Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

Data Sheet B - Site Characterization Page Two - WBID #1008-009 **Stream Morphology: Upstream View Physical Dimensions:** Avg. Depth (ft): 0.3 Max. Depth (ft): 0.4 ⊠ Riffle Width (ft): 3.0 Length (ft): 5.0 Max. Depth (ft): Run Length (ft): Avg. Depth (ft): Width (ft): Max, Depth (ft): Length (ft): Avg. Depth (ft): ☐ Pool Width (ft): Estimated (ft<sup>3</sup>/sec): about 10 X Yes ∏ No ⊠ Flow Present? Downstream View Physical Dimensions: Max. Depth (ft): 0.7 Length (ft): 9.0 Avg. Depth (ft): 0.5 ⊠ Riffle Width (ft): 4.0 Max. Depth (ft): Run Width (ft): Length (ft): Avg. Depth (ft): Avg. Depth (ft): Max. Depth (ft): Length (ft): Pool Width (ft): Estimated (ft<sup>3</sup>/sec): see above Flow Present? X Yes ☐ No **Substrate\*:** (These values should add up to 100%.) 90% Bedrock % Sand % Silt % Mud/Clay 5% Cobble 5% Gravel Aquatic Vegetation\*: (note amount of vegetation or algal growth at the assessment site) Algae on rocks. Water Characteristics\*: (Mark all that apply.) None None Other: Chemical Sewage ☐ Musky Odor: Gray Milky Other: brown Clear Green Color: None None Other: Fine sediments ☐ Solids Bottom Deposit: Sludge None None Other: Scum ☐ Foam Surface Deposit: ∏ Oil Comments: Please attach additional comments (including information from interviews) to this form. \*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that effect another use. I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: Alex Fauf Date: 7-1-05

Organization: B. E. C. Position: Eng.



Photo ID 1008-009US: Upstream (Hinkson Creek)



Photo ID 1009-009DS: Downstream (Hinkson Creek)

## **Data Sheet B - Site Characterization**

(A separate data sheet must be completed for each site)

Missouri WBID #: 1008-	010		Site Location Description: Hinkson Creek at road crossing in NW 1/4 Section 8, T48N, R12W; BID 4 - Boone County				
Site GPS Coordinates: 5	61069E;4312948N		Section 6, 146N, K12W, BID 4 - Boone County				
Date & Time: 5/25/05 - 1	0:30 a.m.		Facility Name:	See Table 2			
Personnel: Tim J. Fandre	y		Permit Number	r: See Table 2			
Current Weather Condition	ons: Sunny - 70s		Weather Cond	itions for Past 7 days: Last ra	ain on May 22		
Photo Ids: Upstream: 10	08-010US Dow	vnstream: 10	08-010DS Oth	er:			
	L		I				
Jses Observed*:		<u>,                                      </u>					
☐ Swimming	☐ Skin diving		UBA diving	☐ Tubing	☐ Water skiing		
☐ Wind surfing	☐ Kayaking	□ Во	ating	□ Wading	Rafting		
Hunting	☐ Trapping	☐ Fis	shing	None of the above	Other:		
Describe: (include numbe	r of individuals rec	reating, frequ	ency of use, phot	o-documentation of evidence	of recreational uses, etc.)		
Surrounding Condition ems of interest.)	<b>s*:</b> (Mark all that p	promote or im	pede recreational	uses. Attach photos of evide	ence or unusual		
City/county parks	☐ Playgrounds	□ MDC as	nservation lands	Urban areas	☐ Campgrounds		
					1.0		
☐ Boating accesses	State parks	☐ National		☐ Nature trails	☐ Stairs/walkway		
☐ No trespass sign	☐ Fence	☐ Steep slo	opes	Other:			
Evidence of Human Use	;* <b>:</b>						
⊠ Roads	☐ Foot paths/pri	nts 🔲 I	Oock/platform	☐ Livestock Watering	RV / ATV Tracks		
☐ Rope swings	☐ Camping Sites	i □ F	Fire pit/ring	☐ NPDES Discharge	☐ Fishing Tackle		
Other: Litter, graffiti							

<sup>\*</sup>Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

# Data Sheet B - Site Characterization

Page Two – WBID #1008-010 :

Upstream ⊠ Riffle	Width (ft): 3.0	Length (ft): 4.0	Ave D	epth (ft): 0.4	May Donal (6)	. 0.5
Run	Width (ft):	Length (ft):	<u>_</u>	epth (ft):	Max. Depth (ft)	
Pool	Width (ft);	Length (ft):		<del> </del>	Max. Depth (ft)	<del>-</del>
⊠ Flow	<del></del>			epth (ft):	Max. Depth (ft)	
□ Flow	Present? Yes	□ No	Estimat	ed (ft <sup>3</sup> /sec): 10-15	······································	
Downstre	am View Physica	al Dimensions:				
Riffle	Width (ft):	Length (ft):	Avg. Do	epth (ft):	Max. Depth (ft)	
Run	Width (ft):	Length (ft):	Avg. De	epth (ft):	Max. Depth (ft)	
⊠ Pool	Width (ft): 5.0	Length (ft): 5.0	Avg. De	epth (ft): 0.6	Max. Depth (ft):	
⊠ Flow	Present? X Yes	□No	<del></del>	ed (ft <sup>3</sup> /sec): see abo		
					-	<u> </u>
ibstrate*:	(These values should					
40%	Cobble	% Gravel 2	20% Sand	% Silt	% Mud/Clay	40% Bedroo
Algae grow	ing on rocks.	ount of vegetation or a	lgal growth at the	assessment site)		
Algae grow	acteristics*: (Mar.	k all that apply.)				
ater Chara	acteristics*: (Mar.	k all that apply.) ☐ Musky	☐ Chemical	None     Non	Other:	
ater Chara Odor: Color:	acteristics*: (Mar	k all that apply.)  Musky  Green	☐ Chemical	None     Milky     Milky	Other: brown	
Algae grow  Algae grow  Algae grow  Odor:  Color:  Bottom Deg	acteristics*: (Man Sewage Clear posit: Sludge	k all that apply.)  Musky  Green  Solids	☐ Chemical ☐ Gray ☐ Fine scdime		Other: brown	
ater Chara Odor: Color: Bottom Dep	acteristics*: (Mar. Sewage Clear posit: Sludge	k all that apply.)  Musky Green Solids Scum	☐ Chemical ☐ Gray ☐ Fine sedime ☑ Foam	None ☐ Milky nts ☑ None ☐ None	Other: brown Other: Other:	
Algae grow  Algae grow  Algae grow  Odor:  Color:  Bottom Dep  Surface Dep  Comments: Formation  In this information  In the property of the p	acteristics*: (Man Sewage Clear Posit: Sludge Posit: Oil Please attach addition is not to be used so understanding of water recreation use analysis	k all that apply.)  Musky Green Solids Scum tional comments (i	Chemical Gray Fine sedime Foam ncluding informereational use detently, this informations that need in	None  Milky nts None  None  None  mation from inte	Other: brown Other: Other: orviews) to this form is to provide a more d to directly influence that effect another use.	n. a
Algae grow  ater Chara Odor: Color: Bottom Dep Surface Dep Dimments: Finis information prehensive unision on the retainment of the undersitasheet is t	acteristics*: (Man Sewage Clear Clear Cosit: Sludge Cosit: Oil Clease attach addition is not to be used so understanding of water cereation use analysicigned, hereby after use and accurate	k all that apply.)  Musky  Green  Solids  Scum  tional comments (in the conditions. Consequents of a removal	Chemical Gray Fine scdime Foam  ncluding inform ecreational use detently, this inform ditions that need if my knowledge	None  Milky nts None  None  None  nation from inte	Other: brown Other: Other: Other: rviews) to this form is to provide a more d to directly influence hat effect another use. mation reported of	n. a n this UAA
Algae grow  ater Chara Odor: Color: Bottom Dep Surface Dep Dimments: Finis information prehensive unision on the retainment of the undersitasheet is t	acteristics*: (Man Sewage Clear Clear Cosit: Sludge Cosit: Oil Clease attach addition is not to be used so understanding of water cereation use analysicigned, hereby after use and accurate	k all that apply.)  Musky  Green  Solids  Scum  tional comments (i	Chemical Gray Fine scdime Foam  ncluding inform ecreational use detently, this inform ditions that need if my knowledge	None  Milky nts None  None  None  nation from inte	Other: brown Other: Other: Other: rviews) to this form is to provide a more d to directly influence hat effect another use. mation reported of	n. a n this UAA



Photo ID 1008-010US: Upstream (Hinkson Creek)



Photo ID 1008-010DS: Downstream (Hinkson Creek)

### **Data Sheet B - Site Characterization**

(A separate data sheet must be completed for each site)

	Missouri WBID #: 1008-		Site Location Description: Hinkson Creek at road crossing in SW 1/4 Section 8, T48N, R12W; BID 9 - Boone County			C			
	Site GPS Coordinates: 5	660606E; 431182	21N		Section 8,	148N,	R12W; BID 9 - Boone Co	unty	
	Date & Time: 5/25/05 - 3	3:15 p.m.			Facility Na	ame: So	ee Table 2		
	Personnel: Tim J. Fandre	ey			Permit Nu	mber: \$	See Table 2		
	Current Weather Conditions: Partly Cloudy - 70s				Weather C	onditio	ns for Past 7 days: Last ra	in on May 22	
	Photo Ids: Upstream: 1008-011US Downstream: 10				8-011DS	Other:	1008-01101; 1008-0110	2; 1008-011O3	
Ha	Jses Observed*:								
US	Swimming	☐ Skin diving			JBA diving		☐ Tubing	☐ Water skiing	
	☐ Wind surfing	☐ Kayaking		☐ Boa			□ Wading	Rafting	
	☐ Hunting	☐ Trapping		☐ Fish			None of the above	Other:	
	_		recreating	g, freque	ncy of use,	photo-d	ocumentation of evidence	of recreational uses, etc.)	
C		~*· (A.f. 1 11.4)			1	1	A., 1 1 . C . 1	1	
	rrounding Condition  ms of interest.)	S": (Mark all tha	at promot	e or imp	ede recreati	onai us	es. Attach photos of evider	ice or unusual	
1101	☐ City/county parks	Playground	s	IDC con	servation la	nds	☐ Urban areas	☐ Campgrounds	
	☐ Boating accesses	☐ State parks	□N	ational f	Forests		■ Nature trails	☐ Stairs/walkway	
							Other: Residential		
	☐ No trespass sign	☐ Fence	$  \sqcup S_1 $	teep slop	oes		area - see picture 1008- 011O3		
		l					01103		
Ev	idence of Human Use	e*:							
	⊠ Roads	☐ Foot paths/p	orints		ock/platforn	1	☐ Livestock Watering	RV / ATV Tracks	
	☐ Rope swings	☐ Camping Si	tes	⊠ Fi	re pit/ring		☐ NPDES Discharge	☐ Fishing Tackle	
	Other: litter								

<sup>\*</sup>Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

## Data Sheet B - Site Characterization

## Page Two - WBID #<u>1008-011</u>:

Stream Morp Upstream		ysical D	imensions:						
Riffle	Width (ft):		Length (ft):	Av	g. Depth (f	t):	Max. De	pth (ft):	,
⊠ Run	Width (ft):	11	Length (ft): 15	Av	g. Depth (f	t): 0.40	Max. De	pth (ft): (	0.40
Pool	Width (ft):		Length (ft):	Av	Avg. Depth (ft):		Max. De	pth (ft):	<u> </u>
□ Flow	Present?	⊠ Yes	□No	Est	timated (ft <sup>3</sup>	/sec): 10-15		<u> </u>	-
Downstrea	am View	Physica	l Dimensions:			. "	·	<u> </u>	
Riffle	Width (ft):		Length (ft): 6.0	Av	g. Depth (f	t): 0.25	Max. De	pth (ft): (	0.40
Run	Width (ft):		Length (ft):		g. Depth (f		Max. De		
Pool	Width (ft):		Length (ft):		g. Depth (f		Max. De		
⊠ Flow	Present?	⊠ Yes	□No		<del></del>	/sec): 10-15		Para (15)	
L.,. <u>.</u>		<del></del> .						·	
			add up to 100%.)				· · · · · · · · · · · · · · · · · · ·		
5%	Cobble	59	% Gravel	% Sand		% Silt	% Mud/Cl	ay	90% Bedrock
Water Chara		s*: (Mark	all that apply.)	Chemi		⊠ None	Other		
Color:		Clear	Green	Gray		Milky	Other		
Bottom De		Sludge	Solids		diments	None	Other		
Surface De		Oil	Scum	⊠ Foam		None	Other		
*This informatic comprehensive a decision on the a I, the unders datasheet is t	is near briden is not to bunderstanding recreation using ned, he true and a	dges. Le be used so ng of wate se analysi reby aff accurate		recreational quently, this is ditions that	s and fine use designant information need further riedge, the	s downstreation but rather is not intender analysis or that all informat all information.	am.  er is to provide a ed to directly in that effect anoth  rmation repo	a more ifluence a ner use.  orted on	ı this UAA
Signed:		R E							



Photo ID 1008-011US: Upstream (Hinkson Creek)



Photo ID 1008-011DS: Downstream (Hinkson Creek)



Photo ID 1008-011O1: Shopping carts, debris on pier (Hinkson Creek)

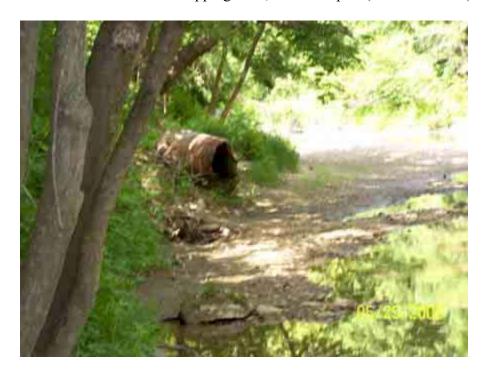


Photo ID 1008-011O2: Pipe (Hinkson Creek)



Photo ID 1008-011O3: (Hinkson Creek)

### **Data Sheet B - Site Characterization**

(A separate data sheet must be completed for each site)

; BID 8 -
ing
unds
lkway
V Tracks
ackle
1

<sup>\*</sup>Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

### Data Sheet B - Site Characterization

Page Two -1008-012:

Stream Morp Upstream	ohology: View Physi	içal Dime	nsions:						
⊠ Riffle	Width (ft): 1	.5	Length (ft): 15		Avg. Depth (f	t): 0.35	М	ax. Depth (ft)	: 0.45
Run	Run Width (ft): Length (ft):			Avg. Depth (ft);		Max. Depth (ft):		:	
Pool	Pool Width (ft): Length (ft):			Avg. Depth (f	it):	М	ax. Depth (ft)	:	
⊠ Flow	Present?	Yes 🗌	No	]	Estimated (ft <sup>3</sup>	/sec): 10-15			
Downstrea	ım View Pl	ıvsical Dir	mensions:						
Riffle R	Width (ft): 3	•	Length (ft): 10		Avg. Depth (f	ft): 0.2	M	ax. Depth (ft)	: 0.35
Run	Width (ft):		Length (ft):		Avg. Depth (f	ît):	M	ax. Depth (ft)	:
⊠ Pool	Width (ft): 8	.0	Length (ft): 10		Avg. Depth (f	ft): 0.4	M	ax, Depth (ft)	: 0.45
Flow	Present?	Yes 🗌	No		Estimated (ft <sup>3</sup>	/sec): 10-15			
C-1-44-*	(TT)		. 1000						•
Substrate*:	Cobble Cobble	should add		10% Sand	<del></del>	% Silt	% N	/lud/Clay	80% Bedrock
Water Chara									
Odor:		sewage	Musky	_=_	mical	None		Other:	:
Color:		Clear	⊠ Green	Gra	-	Milky	<u> </u>	Other:	
Bottom Dej Surface De		Sludge Dil	Solids Scum	Fine Foa	sediments	None □ None	<u></u>	Other: Other:	
Comments: 1 Bedrock near	Please attacl	h additiona	al comments (	includin		_ <del>_</del>	rviews		rm.
*This information comprehensive decision on the	understanding recreation use	of water cor analysis but	nditions. Consect may point to co	quently, th nditions th	is information at need furthe	n is not intended er analysis or th	l to dir at effe	ectly influenc ct another use	e a :.
datasheet is	true and ac	curate.		-	<del>-</del> ·			•	on this UAA
Signed:	pan ,	f am	<b>{</b>		Date:_ <u>N</u>	May 25, 2005	5		
Organization	Barr Engi	neering Co	ompany		Positior	n: <u>Engin</u>	eer	···	



Photo ID 1008-012US1: Upstream (Hinkson Creek)



Photo ID 1008-012US2: Upstream (Hinkson Creek)



Photo ID 1008-012DS: Downstream (Hinkson Creek)



Photo ID 1008-012O1: Pipe (Hinkson Creek)

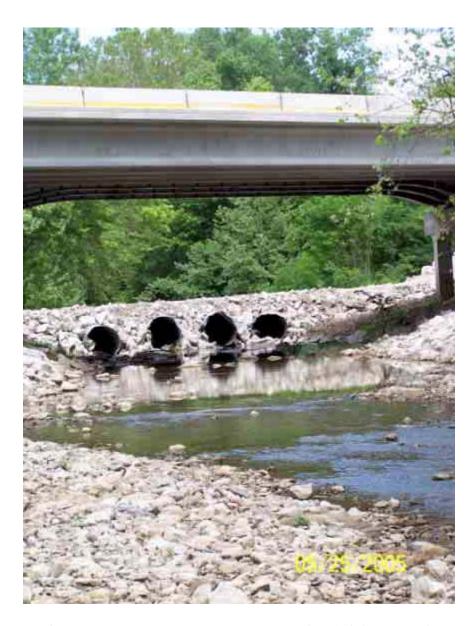


Photo ID 1008-012O2: Temporary Crossing (Hinkson Creek)

### **Data Sheet B - Site Characterization**

(A separate data sheet must be completed for each site)

Missouri WBID #: 1008	-013		Site Location Description: Hinkson Creek at road crossing in NE 1/4 Section 18, T48N, R12W; BID 35 - Boone County										
Site GPS Coordinates: 5	560042E; 4310901N	1	Section 18, T4	8N, R12W; BID 35 - Boone	County								
Date & Time: 5/28/05 - 1	10:15 a.m.		Facility Name:										
Personnel: Tim J. Fandre	ey / Alan J. Fandrey		Permit Number	r:									
Current Weather Condition	ons: Clear - 70s		Weather Cond	itions for Past 7 days: Last R	2. O. rain on May 22								
Photo Ids: Upstream: 10	008-013US Dow	nstream: 100	08-013DS Oth	er:	<u> </u>								
Uses Observed*:	T												
☐ Swimming	☐ Skin diving		UBA diving	☐ Tubing	☐ Water skiing								
☐ Wind surfing	☐ Kayaking	☐ Boa	ating	□ Wading	Rafting								
☐ Hunting	☐ Trapping	☐ Fisi	hing	None of the above	Other:								
Surrounding Condition tems of interest.)	s*: (Mark all that p	promote or im	pede recreational	uses. Attach photos of evide	nce or unusual								
☐ City/county parks	☐ Playgrounds	☐ MDC cor	nservation lands	☐ Urban areas	☐ Campgrounds								
☐ Boating accesses	☐ State parks	☐ National	forests	☐ Nature trails	☐ Stairs/walkway								
☐ No trespass sign	Fence	⊠ Steep slo	pes	Other:									
Evidence of Human Us	e*:												
⊠ Roads	☐ Foot paths/pri	nts 🔲 D											
☐ Rope swings	☐ Rope swings ☐ Camping Sites ☐ F			☐ Livestock Watering	RV / ATV Tracks								
	☐ Camping Sites	□ F	ock/platform ire pit/ring	☐ Livestock Watering ☐ NPDES Discharge	☐ RV / ATV Tracks ☐ Fishing Tackle								
Other:	☐ Camping Sites	□ F											

<sup>\*</sup>Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

# Data Sheet B - Site Characterization

## Page Two - WBID #1008-013:

tream Mor Upstream		ysical D	imensions:				
Riffle	Width (ft)	: 15-25	Length (ft): 7:	5 Avg. De	pth (ft): 0.3	Max. Depth (ft):	0.5
Run	Width (ft)	<u> </u>	Length (ft):	Avg. De	pth (ft):	Max. Depth (ft):	
⊠ Pool	Width (ft)	: 10-60	Length (ft): 1:	50 Avg. De	pth (ft): 1.0	Max. Depth (ft);	1.5
⊠ Flow	Present?	⊠ Yes	□No	Estimate	ed (ft <sup>3</sup> /sec): 10-15	2 (-5)	
Downstre	am View	Physica	l Dimensions:				· · · · · · · · · · · · · · · · · · ·
Riffle	Width (ft)		Length (ft):	Avg. De	pth (ft):	Max. Depth (ft):	
Run	Width (ft)	:	Length (ft):	Avg. De	pth (ft):	Max. Depth (ft):	<del></del>
⊠ Pool	Width (ft)	44-60	Length (ft): 30		pth (ft): 2.6	Max. Depth (ft):	2 8
⊠ Flow	Present?	⊠ Yes	□No		d (ft³/sec): see abo	<del></del>	
						<u> </u>	_ <del></del>
IDstrate*:	(These value Cobble		add up to 100%.) % Gravel	5% Sand			
00.0			70 Graver	3% Sand	% Silt	% Mud/Clay	% Bedroc
quatic Veg Grass in rift	etation*:	(note amo n rocks.	unt of vegetation or	algal growth at the	assessment site)		
ater Chara	fles, algae o	n rocks.  **: (Mark	all that apply.)		assessment site)		
Vater Chara	acteristics	s*: (Mark	all that apply.)	☐ Chemical	⊠ None	Other:	
Vater Chara Odor: Color:	acteristics	on rocks.  S*: (Mark Sewage Clear	all that apply.)  Musky Green	☐ Chemical ☐ Gray	⊠ None	Other:	
Ater Chara Odor: Color: Bottom Dep	acteristics	s*: (Mark   Sewage   Clear   Sludge	all that apply.)	☐ Chemical	⊠ None	Other:	
Ater Chara Odor: Color: Bottom Dep	acteristics  posit:	s*: (Mark   Sewage   Clear   Sludge	all that apply.)  Musky Green Solids Scum	☐ Chemical ☐ Gray ☐ Fine sedimen ☑ Foam		Other: Other: Other: Other: foam de	
Vater Chara Odor: Color: Bottom Dep Surface Dep Omments: F	acteristics  acteristics  posit:  Please atta  on is not to be understanding recreation us  igned, here  rue and a	s*: (Mark   Sewage   Clear   Sludge   Oil   ch additions of water   ce used soling of water   ce analysis	all that apply.)  Musky Green Solids Scum  ional comments ( lely for removal of a conditions. Consect but may point to co	Chemical Gray Fine sediment Foam Gray Foam Gra	None Milky  Milky  Mone None  None  mation from interestion is not intended arther analysis or the ce, that all inform	Other: Other: Other: foam de	this UAA

September 29, 2004

Last printed 6/14/2005 1:57:00 PM



Photo ID 1008-013US: Upstream (Hinkson Creek)



Photo ID 1008-013DS: Downstream (Hinkson Creek)

### **Data Sheet B - Site Characterization**

(A separate data sheet must be completed for each site)

Missouri WBID #: 1008-	Missouri WBID #: 1008-014				Site Location Description: Hinkson Creek at Highway 740 Bridge in NE 1/4 Section 19, T48N, R12W; BID 7 - Boone County				
Site GPS Coordinates: 5	559481E; 4309520N	N	NE 1/4 Secti	10n 15	9, 148N, R12W; BID / - E	soone County			
Date & Time: 5/25/05 - 1	12:40 p.m.		Facility Nam	ne: S	ee Table 2				
Personnel: Tim J. Fandre	Personnel: Tim J. Fandrey				See Table				
Current Weather Condition	ons: Partly Cloudy	- 70s	Weather Cor	nditio	ons for Past 7 days: Last ra	in on May 22			
Photo Ids: Upstream: 10	008-014US Dov	vnstream: 10	08-014DS C	Other:	<u> </u>	-			
	<u> </u>								
Uses Observed*:					<u> </u>				
Swimming	☐ Skin diving	$\Box$ so	CUBA diving		☐ Tubing	☐ Water skiing			
☐ Wind surfing	☐ Kayaking	□ Во	oating		□ Wading	Rafting			
Hunting	☐ Trapping	☐ Fis	shing		None of the above	Other:			
Surrounding Condition	<b>s*:</b> (Mark all that p	promote or in	npede recreation	nal us	es. Attach photos of evide	nce or unusual			
tems of interest.)	т				Γ_	T			
☐ City/county parks	☐ Playgrounds	☐ MDC co	onservation land	ds	Urban areas	☐ Campgrounds			
☐ Boating accesses	☐ State parks	☐ National	l forests		☐ Nature trails	☐ Stairs/walkway			
☐ No trespass sign	☐ Fence	⊠ Steep sle	opes		Other:				
Evidence of Human Us	e* <b>:</b>								
Roads	☐ Foot paths/pri	nts 🔲 I	Dock/platform		☐ Livestock Watering	RV / ATV Tracks			
☐ Rope swings	☐ Camping Sites	;	Fire pit/ring		☐ NPDES Discharge	☐ Fishing Tackle			
Other: old tire, gabio	ns	•							

<sup>\*</sup>Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

## Data Sheet B - Site Characterization

# Page Two - WBID #<u>1008-014</u>:

□ Run     □ Pool     □ Flow	Width (ft): Width (ft): Width (ft): Present?	8.0	Length (ft): 3.6  Length (ft): 4.6  Length (ft): 5.6  Length (ft): 5.6  No	Avg. Dep Avg. Dep		Max. Depth (ft):  Max. Depth (ft):  Max. Depth (ft):	
☐ Pool ☐ Flow  Downstrea ☐ Riffle	Width (ft): Present?		Length (ft):	Avg. Dep Avg. Dep	pth (ft):	Max. Depth (ft):	
☐ Flow  Downstrea  ☐ Riffle	Present?		Length (ft):	Avg. Deg			
Downstrea    Riffle		⊠ Yes			ναι (1ι).		
Riffle	m View			Fetimate	d (ft³/sec): 10-15	Deput (II).	<del></del>
Riffle	m View			L3tmate.	u (11/866). 10-13	<u> </u>	
<u> </u>		Physica	l Dimensions:				
⊠ Dun	Width (ft):	3.0	Length (ft); 22	Avg. Det	pth (ft): 0.75	Max. Depth (ft):	1.3
🖂 Kuli	Width (ft):	17	Length (ft): 3.0	Avg. Det	pth (ft); 0.3	Max. Depth (ft):	
Pool	Width (ft):		Length (ft):	Avg, Der		Max. Depth (ft):	<del></del>
☐ Flow	Present?	⊠ Yes	□ No		d (ft <sup>3</sup> /sec): 10-15		
					<u> </u>	<del></del>	
Substrate*:	These valu	es should	add up to 100%.)				
	Cobble		% Gravel	20% Sand	% Silt	% Mud/Clay	% Bedrock
Water Chara	cteristics		all that apply.)		57		
Color:		Sewage	Musky	Chemical	⊠ None	Other:	
<u> </u>		Clear	Green	Gray	Milky	Other:	<u> </u>
Bottom Dep		Sludge	Solids	Fine sedimen		Other:	- <del>-</del>
Surface Dep	osit:	Oil	☐ Scum	⊠ Foam	None	Other;	
Surface Deposition on down on down on down on the residual control of the residual control on the resi	sit: Foam vnstream n is not to l nderstandin ecreation us gned, he	shore whose used so ag of water see analysis reby aff accurate	Il amount. ith fencing around lely for removal of a or conditions. Consect s but may point to con irm to the best o	d it. recreational use desquently, this informanditions that need for my knowledge	signation but rather ation is not intended arther analysis or the e, that all inform	rviews) to this form is to provide a more d to directly influence nat effect another use.	a on this UAA
Signed:	-cen	<u> </u>	any	Date	:	o5 5.	



Photo ID 1008-014US: Upstream (Hinkson Creek)



Photo ID 1008-014DS: Downstream (Hinkson Creek)

### **Data Sheet B - Site Characterization**

(A separate data sheet must be completed for each site)

Missouri WBID #: 1008-	015		Site Location Description: Hinkson Creek at road crossing in NE 1/4			
		_		N, R12W; BID 6 - Boone C		
Site GPS Coordinates: 5	59512E; 4309270N	N				
Date & Time: 5/25/05 - 1	1:50 a.m.		Facility Name: See Table 2			
Personnel: Tim J. Fandre	у		Permit Number:	See Table 2		
Current Weather Condition	ons: Sunny - 70s		Weather Condit	ions for Past 7 days: Last ra	in on May 22	
Photo Ids: Upstream: 10	08-015US Dow	vnstream: 10	08-015DS Other	r:		
_						
Uses Observed*:						
Swimming	☐ Skin diving		CUBA diving	☐ Tubing	☐ Water skiing	
☐ Wind surfing	☐ Kayaking	□ Во	pating	□ Wading	Rafting	
Hunting	☐ Trapping	☐ Fi	shing	☑ None of the above	Other:	
Describe: (include numbe	r of individuals rec	reating frequ	iency of use nhoto.	-documentation of evidence	of recreational uses etc.)	
Surrounding Conditions tems of interest.)	<b>S*:</b> (Mark all that p	promote or in	npede recreational u	uses. Attach photos of evide	nce or unusual	
☐ City/county parks	Playgrounds	☐ MDC co	onservation lands	☐ Urban areas	Campgrounds	
☐ Boating accesses	☐ State parks	☐ Nationa	l forests	☐ Nature trails	☐ Stairs/walkway	
☐ No trespass sign	☐ Fence	⊠ Steep sl	opes	Other:		
Evidence of Human Use	,*•			,		
⊠ Roads	☐ Foot paths/prin	nts 🔲 1	Dock/platform	☐ Livestock Watering	□ RV / ATV Tracks	
☐ Rope swings	☐ Camping Sites	s 1	Fire pit/ring	☐ NPDES Discharge	☐ Fishing Tackle	
Other:						

<sup>\*</sup>Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

### Data Sheet B - Site Characterization

### Page Two - WBID #1008-015:

Stream Mor Unstream	phology: View Physical I	dimensions:				
□ Riffle	Width (ft): 11	Length (ft): 4.0	Avg. Depth	(ft): 0.2	Max, Depth (ft)	: 0.4
Run	Width (ft):	Length (ft):	Avg. Depth	(ft):	Max. Depth (ft)	
⊠ Pool	Width (ft): 10	Length (ft): 20	Avg. Depth	· · · · · · · · · · · · · · · · · · ·	Max. Depth (ft)	<del></del>
⊠ Flow	Present? Xes	☐ No		t <sup>3</sup> /sec): 10-15		
Downstre	am View Physic	al Dimensions		· · · · · · · · · · · · · · · · · · ·		
Riffle	Width (ft):	Length (ft):	Avg. Depth	(ft):	Max. Depth (ft)	<u>-</u>
Run	Width (ft):	Length (ft):	Avg. Depth	-	Max. Depth (ft)	
⊠ Pool	Width (ft): 8.0	Length (ft): 20	Avg. Depth	<del>``</del> -	Max. Depth (ft)	
☐ Flow	Present? X Yes	□No		t <sup>3</sup> /sec): 10-15	Than Dopar (10)	
	(These values shoul		% Sand	% Silt	% Mud/Clay	0' D-11
,,,,	· coopie	570 Glaver 20	70 Said	w Sin	76 Mud/Clay	% Bedrock
	acteristics*; (Ma			<b>N</b>		
Odor:	Sewage		Chemical	None	Other:	
Color:	⊠ Clear	Green	Gray	Milky	Other:	
Bottom De	<u> </u>	Solids	Fine sediments	None	Other:	
Surface De	posit: [] Oil	Scum	Foam	None	Other:	
*This informati comprehensive decision on the I, the unders datasheet is	on is not to be used s understanding of wa recreation use analys		creational use designently, this information itions that need furth my knowledge, t	nation but rather on is not intendenter analysis or the	r is to provide a more of to directly influence that effect another use.  mation reported	; a
Signed:	van 1	any	Date:	7-/-	05	
Organization	: <i>E</i>	S FC	Date: Positio	n: <i>Ens.</i>		



Photo ID 1008-015US: Upstream (Hinkson Creek)



Photo ID 1008-015DS: Downstream (Hinkson Creek)

### **Data Sheet B - Site Characterization**

(A separate data sheet must be completed for each site)

	Missouri WBID #: 1008-	-016		Site Location Description: Hinkson Creek at road crossing in NW 1/4 Section 19, T48N, R12W; BID 2 - Boone County					
	Site GPS Coordinates: 5	58624E; 4309284N		Section 19, T48N	I, R12W; BID 2 - Boone Co	ounty			
	Date & Time: 5/24/05 - 2	2:15 p.m.		Facility Name: See Table 2					
	Personnel: Tim J. Fandre	ey		Permit Number:	See Table 2				
	Current Weather Condition	ons: Partly Cloudy -	70s	Weather Condition	ons for Past 7 days: Last ra	in on May 22			
	Photo Ids: Upstream: 10	08-016US Down	stream: 016	DS1/DS2 Other:					
Us	es Observed*:	T	<u> </u>		T	T			
	Swimming	☐ Skin diving	☐ SCU	JBA diving	☐ Tubing	☐ Water skiing			
	☐ Wind surfing	☐ Kayaking	☐ Boa	ting	☐ Wading	Rafting			
	☐ Hunting	☐ Trapping	☐ Fish	ning	None of the above	Other:			
Cu	waynding Condition	c*• (Marka 114ba 4 ma			A I I				
	rrounding Condition  ns of interest.)	S": (Mark all that pr	omote or imp	bede recreational us	ses. Attach photos of eviden	nce or unusual			
	☐ City/county parks	Playgrounds	☐ MDC con	servation lands	Urban areas	Campgrounds			
	☐ Boating accesses	☐ State parks	☐ National 1	forests	■ Nature trails	☐ Stairs/walkway			
	☐ No trespass sign	☐ Fence	☐ Steep slop	pes	Other:				
Ev	idence of Human Uso	e <b>*:</b>							
	⊠ Roads		s Do	ock/platform	☐ Livestock Watering	RV / ATV Tracks			
	☐ Rope swings	☐ Camping Sites	☐ Fi	re pit/ring	☐ NPDES Discharge	☐ Fishing Tackle			
	Other:								

<sup>\*</sup>Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

## Data Sheet B - Site Characterization

Page	Two -	<b>WBID</b>	#100	08-016:

ream Morp <u>Upstream '</u>		ysical D	imensio	ns:						
Riffle	Width (ft):		Leng	gth (ft):		Avg. Dep	th (ft):	M	lax. Depth (ft)	· · · · · · · · · · · · · · · · · · ·
⊠ Run	Width (ft):	12	Leng	th (ft): 1	.20	Avg. Dep	th (ft): 0.5	M	lax. Depth (ft)	0.6
⊠ Pool	Width (ft):	13	Leng	th (ft): 2	25	Avg. Dep	th (ft): 0.7		lax. Depth (ft)	
⊠ Flow 1	Present?	Xes	□ No			Estimated	(ft <sup>3</sup> /sec): 10-15			
Downstream	m View :	Physica	l Dimens	sions:				-	,	
	Width (ft):			th (ft): 3	37	Avg. Dep	th (ft): 0,4	M	lax. Depth (ft)	: 0.5
⊠ Run	Width (ft):	4.0	Leng	th (ft); 1	.9	Avg. Dep	th (ft): 0.6	·	lax. Depth (ft)	
⊠ Pool	Width (ft):	7.0	Leng	th (ft): 6	<u>-</u>		th (ft): 0.3		lax. Depth (ft)	
⊠ Flow 1	Present?	Yes	□No				(ft <sup>3</sup> /sec): 10-15		Dopin (11)	
							· • • • • • • • • • • • • • • • • • • •		<del>-</del> · · · · · · · · · · · · · · · · · · ·	
ibstrate*: (7	These valu Cobble			100%.)		Name of the state	~ ~ ~			
	Copple		% Gravel	<u> </u>	<u>~~</u> % S	Sand	% Silt	<u>%</u> N	/lud/Clay	90% Bedroc
quatic Vegel A lot of grow	vth on bedr	ock.			r algal g	growth at the a	ssessment site)			
A lot of grow	vth on bedr	ock. **: (Mark	all that ap	oply.)						
A lot of grow	on bedicteristics	*: (Mark Sewage	all that ap	oply.) Musky		Chemical	⊠ None		Other:	
A lot of grow  Ater Charac Odor: Color:	cteristics	*: (Mark Sewage Clear	x all that ap	oply.) Musky Green		Chemical Gray	⊠ None		Other:	
A lot of grow	cteristics	*: (Mark Sewage	c all that ap	oply.) Musky		Chemical	⊠ None			
ater Charac Odor: Color: Bottom Depo Surface Depo his information mprehensive un cision on the re the undersignasheet is tr	cteristics  cteristics  cosit:  cosit:  cteristics  cosit:  co	*: (Mark Sewage Clear Sludge Oil ch addit	all that ap  S S S S S S S S S S S S S S S S S S	Joply.) Musky Green Solids Grum moval of hs. Conspoint to constant	inclu a recreaequently condition	Chemical Gray Fine sedimen Foam ding inform ational use des y, this informa as that need fu	None	r is to pred to dire that effect mation	Other: Ot	a on this UAA
ater Charac Odor: Color: Bottom Depo Surface Depo his information mprehensive un cision on the re the undersignasheet is tr	cteristics  cteristics  cosit:  cosit:  cteristics  cosit:  co	*: (Mark Sewage Clear Sludge Oil ch addit	all that ap  S S S S S S S S S S S S S S S S S S	Joply.) Musky Green Solids Grum moval of hs. Conspoint to constant	inclu a recreaequently condition	Chemical Gray Fine sedimen Foam ding inform ational use des y, this informa as that need fu	None ☐ Milky ☐ None ☐ None ☐ None ation from inte	r is to pred to dire that effect mation	Other: Ot	a on this UAA



Photo ID 1008-016US: Upstream (Hinkson Creek)



Photo ID 1008-016DS1: Downstream (Hinkson Creek)



Photo ID 1008-016DS2: Downstream (Hinkson Creek)

### **Data Sheet B - Site Characterization**

(A separate data sheet must be completed for each site)

Date & Time: 5/24/05 - 1:15 p.m.   Facility Name: See Table 2	Site GPS Coordinates: 5	-017		Site Location Description: Hinkson Creek at Providence Road					
Personnel: Tim J. Fandrey  Current Weather Conditions: Partly Cloudy - 70s  Photo Ids: Upstream: 017US1/US2  Downstream: 017DS1/DS2  Other:  Uses Observed*:  Swimming Skin diving SCUBA diving Wading Rafting Water skiing Wind surfing Trapping Shining Shining None of the above Other:  Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)  Surrounding Conditions*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual terms of interest.)  City/county parks Playgrounds MDC conservation lands Urban areas Campgrounds Boating accesses State parks National forests Mature trails Stairs/walkway  No trespass sign Fence Steep slopes Other:		557330E; 43089711	N	crossing in SW 1/4 Section 24, T48N, R13W; BID 1 - Boone County					
Current Weather Conditions: Partly Cloudy - 70s   Weather Conditions for Past 7 days: Last rain on May 22   Photo Ids: Upstream: 017US1/US2   Downstream: 017DS1/DS2   Other:    See Observed*:	Date & Time: 5/24/05 - 1	:15 p.m.		Facility Name: See Table 2					
Photo Ids: Upstream: 017US1/US2   Downstream: 017DS1/DS2   Other:    See Observed*:	Personnel: Tim J. Fandre	y		Permit Number:	See Table 2				
Sees Observed*:   Swimming	Current Weather Condition	ons: Partly Cloudy	- 70s	Weather Condit	ions for Past 7 days: Last ra	ain on May 22			
Swimming       Skin diving       SCUBA diving       Tubing       Water skiing         Wind surfing       Kayaking       Boating       Wading       Rafting         Hunting       Trapping       Fishing       None of the above       Other:         Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)         Surrounding Conditions*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual tems of interest.)         City/county parks       Playgrounds       MDC conservation lands       Urban areas       Campgrounds         Boating accesses       State parks       National forests       Nature trails       Stairs/walkway         No trespass sign       Fence       Steep slopes       Other:	Photo Ids: Upstream: 01	7US1/US2 Dov	vnstream: 017	DS1/DS2 Othe	r:	-			
Wind surfing       Kayaking       Boating       Wading       Rafting         Hunting       Trapping       Fishing       None of the above       Other:         Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)         Surrounding Conditions*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual tems of interest.)         □ City/county parks       Playgrounds       MDC conservation lands       Urban areas       Campgrounds         □ Boating accesses       State parks       National forests       Nature trails       Stairs/walkway         □ No trespass sign       Fence       Steep slopes       Other:		<u> </u>		I					
Wind surfing       Kayaking       Boating       Wading       Rafting         Hunting       Trapping       Fishing       None of the above       Other:         Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)         Surrounding Conditions*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual tems of interest.)         □ City/county parks       Playgrounds       MDC conservation lands       Urban areas       Campgrounds         □ Boating accesses       State parks       National forests       Nature trails       Stairs/walkway         □ No trespass sign       Fence       Steep slopes       Other:	Jses Observed*:		T-			,			
Hunting	Swimming	☐ Skin diving		UBA diving	☐ Tubing	☐ Water skiing			
Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)  Surrounding Conditions*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual tems of interest.)  City/county parks	☐ Wind surfing	☐ Kayaking	□ Воа	ating	☐ Wading	Rafting			
Surrounding Conditions*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual tems of interest.)    City/county parks	Hunting	☐ Trapping	☐ Fish	hing	None of the above	Other:			
tems of interest.)  City/county parks	Describe: (include number	er of individuals rec	creating, freque	ency of use, photo	-documentation of evidence	of recreational uses, etc.)			
tems of interest.)  City/county parks									
tems of interest.)  City/county parks									
□ Boating accesses       □ State parks       □ National forests       □ Nature trails       □ Stairs/walkway         □ No trespass sign       □ Fence       □ Steep slopes       □ Other:     Evidence of Human Use*:	urrounding Condition	<b>s*:</b> (Mark all that )	promote or imp	pede recreational u	uses. Attach photos of evide	nce or unusual			
□ No trespass sign □ Fence □ Steep slopes □ Other:  Evidence of Human Use*:	O	<b>S*:</b> (Mark all that p	promote or imp	pede recreational t	uses. Attach photos of evide	nce or unusual			
Evidence of Human Use*:	ems of interest.)	T	T			T			
	rems of interest.)  City/county parks	□ Playgrounds	☐ MDC cor	nservation lands	☐ Urban areas	☐ Campgrounds			
	ems of interest.)  City/county parks  Boating accesses	☐ Playgrounds ☐ State parks	☐ MDC cor	nservation lands forests	☐ Urban areas ☑ Nature trails	☐ Campgrounds			
■ Roads           ■ Foot paths/prints           □ Dock/platform           □ Livestock Watering           □ RV / ATV Tracks	ems of interest.)  City/county parks  Boating accesses  No trespass sign	☐ Playgrounds ☐ State parks ☐ Fence	☐ MDC cor	nservation lands forests	☐ Urban areas ☑ Nature trails	☐ Campgrounds			
☐ Rope swings ☐ Camping Sites ☐ Fire pit/ring ☐ NPDES Discharge ☐ Fishing Tackle	ems of interest.)  City/county parks  Boating accesses  No trespass sign	☐ Playgrounds ☐ State parks ☐ Fence	☐ MDC cor ☐ National ☑ Steep slo	nservation lands forests pes	☐ Urban areas  ☑ Nature trails ☐ Other:	☐ Campgrounds ☐ Stairs/walkway			
☐ Other:	ems of interest.)  City/county parks  Boating accesses  No trespass sign  Evidence of Human Use	☐ Playgrounds ☐ State parks ☐ Fence  e*: ☐ Foot paths/pri	☐ MDC cor ☐ National ☑ Steep slo	nservation lands forests pes	☐ Urban areas ☐ Nature trails ☐ Other: ☐ Livestock Watering	☐ Campgrounds ☐ Stairs/walkway ☐ RV / ATV Tracks			

<sup>\*</sup>Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

### Data Sheet B - Site Characterization

Pa	ge Two	WBID # <u>1</u>	<u>008-017</u>	:			AZULION		
	eam Mor Upstream		ysical D	imensions:					
	Riffle	Width (ft):	25	Length (ft): 3	0	Avg. Depth (	ft): 0.3	Max. Depth	(ft): .35
	⊠ Run	Width (ft):	5.0	Length (ft): 2	7	Avg. Depth (	ft): 0.8	Max. Depth	(ft): 0.9
	Pool	Width (ft)		Length (ft):		Avg. Depth (	ft):	Max. Depth	(ft):
	⊠Flow	Present?	⊠ Yes	□No		Estimated (ft	³/sec): 15-25		
	Downstre	am View	Physica	l Dimensions:					
	Riffle	Width (ft)		Length (ft):		Avg. Depth (	ft);	Max. Depth	(ft):
	Run	Width (ft)	:	Length (ft):		Avg. Depth (	ft):	Max. Depth	(ft);
	□ Pool	Width (ft):	: 20	Length (ft); 3	5	Avg. Depth (		Max. Depth	<del>.</del>
	⊠ Flow	Present?	⊠ Yes	□ No			³/sec): 15-25		(14).
	uatic Veg	6 Cobble	50°	add up to 100%.) % Gravel   ount of vegetation o	50% San	1	% Silt ssment site)	% Mud/Clay	% Bedrock
W	Odor:	acteristic	] Sewage	all that apply.)		emical	None None	Other:	
	Color: Bottom De	L	Clear Sludge	⊠ Green ☐ Solids	☐ Gr		Milky	Other:	
	Surface De		Oil	Scum		ne sediments am	None     None	Other:	
*Theone dec	nd bar separation of the separ	arating rifernstream, on is not to understanding recreation using the true and	fle and regravel are be used so ng of water se analysise reby affaccurate		30' long n. Minno a recreatio equently, the conditions to of my ki	black tubing was and fish nal use design his informatio hat need furth nowledge, the	coming out up to 15 included ation but rather is not intende er analysis or the hat all information	of ground on so hes long on dow is to provide a mad d to directly influent at effect another to mation reports	andbar. wnstream side.  ore case.  ed on this UAA
Or	ganization	:	BE	tamp.		Position	1: Eng.		



Photo ID 1008-017US1: Upstream (Hinkson Creek)



Photo ID 1008-017US2: Upstream (Hinkson Creek)



Photo ID 1008-017DS1: Downstream (Hinkson Creek)



Photo ID 1008-017DS2: Downstream (Hinkson Creek)